FLWEMS Paramedics Adult Protocol for the Management of:
TRAUMA

Indication
To outline the paramedic care and management of the patient with known or suspected traumatic injuries.

General Procedures

1. Secure airway as outlined in FLWEMS Paramedics Adult Protocol for the Management of Airway & Ventilation and administer supplemental **Oxygen** as needed.

2. Establish a minimum of one large bore IV of **0.9% NaCL** or **Lactated Ringers**. Attempt two large bore IV's for all Class I patients ***(DO NOT DELAY PATIENT TRANSPORT BY ATTEMPTING TO ESTABLISH IV's ON-SCENE).*** Administer IV fluids to maintain normal blood pressure.

3. Stabilize any penetrating objects.

4. Use full spinal immobilization for potential, suspected, or documented spine. Injuries to include:

   - Long spine board
   - Rigid cervical collar
   - Towel rolls or head securing devices

5. May administer pain medication per Pain Management protocol.

6. Treat for nausea and vomiting as per the direction of Medical Control. May consider:

   - **Promethazine** 12.5 – 25mg IVP
   - **Ondansetron** (Zofran) 4mg IVP or IM undiluted over 30 seconds

7. Contact medical control for any orders not outlined below.

Traumatic Shock

1. Infuse warm crystalloid on pressure bags until signs of shock are absent. Notify Medical Control in ALL cases when > 2 liters of fluid has been infused and the patient remains hypotensive SBP (<90mm/Hg) or exhibits clinical signs of shock.

2. Apply direct pressure manually or via pressure dressing for any obvious hemorrhage. Consider hemorrhage. Consider utilizing pressure on points proximal to arterial lacerations or if unable to control by any other means, consider a tourniquet, just proximal to injury (refer to Extremity Trauma).

3. If otherwise not contraindicated, consider application of MAST suit, contact medical control for order to inflate as needed to maintain a SBP 80-90 mm/Hg.

Thoracic Trauma

1. If signs of a tension pneumothorax develop i.e., tracheal deviation, absent breath sounds on the affected side, and cardiovascular compromise, may use a large bore IV (16ga. or 14ga. × 2 inch) catheter for a chest decompression.

2. MAST trousers should not be routinely used in the patient with thoracic trauma.

Facial Trauma

1. Consider this patient to be a difficult intubation candidate. Have surgical airway equipment ready.

2. Stabilize bone fragments or penetrating objects.

3. Suspect cervical spine injury and head trauma.

Spinal Injuries

NOTE: Paramedics SHALL NOT clear cervical spines in the field, this should only be done by a properly trained physician/PA. All patient with a "neck pain" complaint that involves trauma should have full spinal immobilization *(rigid cervical collar with head and body secured to a long spine board)* applied until evaluated by an Emergency Room physician/PA.

1. Establish airway per Airway and Ventilation protocol and provide supplemental **Oxygen**.
2. Establish a minimum of one (1) large bore IV's.
3. Utilize full spinal immobilization for potential, suspected or documented spine injuries to include:
   - Rigid cervical collar
   - KED for seated patients (unless otherwise contraindicated for rapid extrication needs
   - Long spine board
   - Towel rolls or head blocks
   - Device securing head to stretcher.
4. Assess and monitor for signs of peripheral motor and sensory deficits.
5. Document any deficits and note changes in condition during transfer.
6. Protect insensitive and/or immobile areas from further injury.
7. Consider **Dopamine HCl** 2-10mcg/kg/min for hypotension with bradycardia if hypotension is believed to be neurogenic in nature and not responsive to 2 liters IV fluid bolus.
8. Contact medical control for further orders as needed.

Head Injuries

1. Secure airway in all patients with a GCS<8. Ventilate per Airway and Ventilation protocol.
2. Consider **Lidocaine HCl** 1mg/kg IVP for any procedure that will elevate ICP. May repeat dose every 30 minutes.
3. Elevate head of bed while maintaining spinal alignment.
4. May administer **Diazepam** (Valium) 0.1mg/kg as needed for witnessed seizure.

Abdominal and/or Pelvic Trauma

1. MAST trousers may be placed to stabilize suspected pelvic fractures only. Absolute contraindication of MAST is pulmonary edema.
2. If otherwise not contraindicated, consider application of MAST suit, contact medical control for order to inflate as needed to maintain a SBP 80-90 mm/Hg.

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Extremity Trauma

1. If the condition of the patient allows, assess distal circulation, motion, and sensation (CMS).

2. Stabilize fractures with an appropriate splint. Splints placed prior to arrival should be continued. If traction splints present a loading problem, it may be necessary to discontinue or replace with an alternative splint.

3. Open wounds should be dressed in a clean manner.

4. Angulation posing a neurovascular threat should be gently aligned if possible to restore circulation or sensory integrity.

5. Re-evaluate any air-containing splint every five minutes and adjust as needed.

6. Amputations: perform bleeding control methods and prepare amputated parts for transport with the patient. The part should be flushed with crystalloid solutions, placed in a dry sterile dressing and container (if available) such as a zip-lock bag and kept cool (suspended over ice optimally).

7. Transport to appropriate Emergency Department.

8. Contact Medical Control for further orders as needed.

Trauma Transport

All reference to times in this protocol begin at the time that EMS providers become aware of the unstable classification of the patient. This may be at the time of dispatch or at the time of arrival on the scene. These times DO NOT refer to transport times!

1. Trauma Arrest patients need to go to the nearest hospital by ground ambulance.

2. For all other UNSTABLE burn patients:

   - If less than 30 minutes from the Regional Burn Center, transport the patient directly there.

   - If greater than 30 minutes from the Regional Burn Center, consider using aero-medical assistance for scene extrication (call as early as possible) if:

     (1) Air transport will result in a significant time savings for patient arrival at the Regional Burn Center over ground transport.

     -- OR --

     (2) The aero-medical crew can provide specific interventions or rescue procedures needed at the scene.

   - If no helicopter is available and less than 45 minutes from the Regional Trauma Center, transport the patient directly to the closest hospital.

3. For any patient whose airway is not manageable:

   - If less than 15 minutes from any hospital, transport the patient directly there.

   - If greater than 15 minutes from a hospital, consider calling for aero-medical assistance (if ETA to a hospital is less than the ETA of a helicopter, transport the patient to the hospital).

FOR ALL UNSTABLE PATIENTS, CONTACT MEDICAL CONTROL AT THE DESTINATION FACILITY AS SOON AS POSSIBLE!

4. When considering aero-medical transport, **CALL EARLY** based on the patient's physiologic classification as unstable.

5. Do not delay on the scene for the helicopter. If the patient is packaged and ready for transport, start en-route to the hospital and reassign the Landing Zone either closer to the hospital or at the hospital's designated Landing Zone; the helicopter can intercept with you.

CAIRA/Chemical Surety Considerations
None

Triage Considerations
Refer to S.T.A.R.T. Triage Protocol

END OF SOP – NOTHING FOLLOWS